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EXAMINER

CAI, WAYNE HUU

ART UNIT PAPER NUMBER

2681

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,187

Applicant(s)

VIKSE ET AL.

Examiner

Wayne Cai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/02/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10, 12-23, 28-30 and 35-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 12-23, 28-30, 35-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/06/2005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 09/02/2005 have been fully considered but they are not persuasive.

The Applicants assert that the claimed invention initiates a reboot of the remote device prior to writing the code to the non-volatile memory, and the cited reference paragraph 0027 fails to teach or suggest this claimed feature. The Examiner respectfully disagrees with the Applicants' assertion because in paragraph 0027, McAlinden "requires a re-boot before the new configuration takes effect." (i.e., the remote device is required to initiate a reboot). Therefore, it reads on the claimed limitation. Furthermore, and specifically in the independent claims 10, 18, 21, and 28, the Examiner cannot find anywhere in which the claim recites "initiates a reboot of the remote device *prior* to writing the code to the non-volatile memory."

Even more, the Applicants' statements contradict with the claimed invention. For instance, in claim 21, the Applicants recites 4 steps of burning a computer code comprising:

- (i) assembling the complete set of the computer code into a continuous memory,
 - (ii) burning the computer code into a flash memory of the remote computer;
 - (iii) deleting the stored computer code from the non-volatile memory;
- and

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- (iv) rebooting the remote computer.

Hence, the claim is being read as: first writing the code to the non-volatile memory in step (ii), then rebooting the remote computer in step (iv) (i.e., initiate a reboot of the remote device **after** writing the code to the non-volatile memory.)

At the last paragraph on page 13 of the Remarks, the Applicants also point out Figure 5 to support for the claimed limitations. However, the flowchart of processes in Figure 5 of the present application shows that downloading code module & store in memory in step 52 occurs before rebooting in step 53.

Hence, the Applicants or the Applicants' representatives assertions are incorrect, and previous rejection was proper.

The Applicants also argue that the cited reference fails to mention of assembling a complete set of the computer code into a continuous memory. The Examiner again disagrees with the assertions because Hoffman teaches or suggests in column 10, lines 61-67 that the station 5 loads the module into an appropriate location in its memory after verifying the software was correctly and completely received (i.e., assembling the complete set of the computer code into a continuous memory).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 12-23, 28-30, 35, 37-49, and 52-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (US – 6,622,017 B1) in view of McAlinden (US 2002/0193101 A1).

Regarding claim 10, Hoffman discloses a method of providing computer code to a programmable memory of a remote device, using a wireless communication technique, the method comprising:

- downloading a code segment and storing the code segment in a first memory (col.13, lines 26-32);
- burning the code segment into the programmable memory (col.12, lines 19-36).

Hoffman, however, fails to disclose wherein initiating a reboot of the remote device.

In a similar endeavor, McAlinden discloses a way of configuring a portable device. McAlinden also discloses wherein initiating a reboot of the remote device (paragraph 0027).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an initiating a reboot of the remote device so that the software and hardware could be restarted and taken effect.

Regarding claim 12, Hoffman, and McAlinden disclose the method of claim 10 as described above. Hoffman also discloses the remote device is a cellular phone (fig.1, element 5) and wherein the code segment is downloaded across a cellular phone network (fig.2, and its descriptions).

Regarding claims 13-14, 19-20, 22-23, 29-30, 39-41, 45-46, and 48-49, Hoffman, and McAlinden both disclose the method as described above, except for the remote device is located on a mobile platform, vehicle, or truck. However, it is obvious to one skilled in the art to place the remote device (fig.1, element 5) on a mobile platform, vehicle or truck because it is more convenient for users to access to the device at anytime and anywhere.

Regarding claim 15, Hoffman, and McAlinden disclose all the limitations as described above. McAlinden also discloses wherein the memory is programmable memory from the group consisting of: EPROM, EEPROM, and a flash memory (paragraphs 0015 & 0029).

Regarding claims 16-17, 42-43, Hoffman and McAlinden disclose the method of claims 10, and 37 as described above. Hoffman further discloses detecting the presence of the complete code (col.10, lines 44-60). However, both Hoffman and McAlinden fail to disclose transmitting the computer code as a plurality of packets, combining the plurality of packets into a complete code segment.

Hoffman and McAlinden are silent on the computer code is transmitted as a plurality of packets and combining the plurality of packets into a complete code segment. However, it is well known in the art that multiple packets of code are combined into a one complete segment because each packet represents different information, and it needs to be integrated together to be transferred over the network all at once.

Regarding claim 18, Hoffman discloses a method for programming of computer code at a remote platform having a local computer, the local computer including a flash memory, the method comprising:

- receiving a plurality of computer code packets, wherein the plurality computer code packets are provided by wireless transmission (col.10, lines 44-60);
- storing the plurality of computer code packets in a memory of the local computer, wherein the plurality of computer code packets comprise the computer code (col.10, lines 61-67);
- recognizing reception of a complete copy of the computer code at the local computer (col.10, lines 61-67);
- burning the received computer code into the flash memory (col.10, lines 61-67);
- erasing the stored computer code from the continuous memory (col.7, lines 1-9);

Hoffman, however, fails to disclose:

- shutting down, rebooting, restarting the local computer;

In a similar endeavor, discloses McAlinden discloses a way of configuring a portable device. McAlinden also discloses shutdown, reboot, restarting the local computer (paragraph 0027).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reboot the local computer so that the software and hardware parts could be reinitiated.

With further regard to claim 44, McAlinden also discloses wherein detecting the presence of downloaded code during reboot (paragraph 0027).

Regarding claim 21, Hoffman discloses a method for updating computer code in a remote computer, comprising:

- downloading a plurality of messages, each of the plurality of messages comprising a segment of the computer code (col.10, lines 44-60);
- storing the downloaded computer code in non-volatile memory (col.10, lines 61-67);
- detecting when a complete set of the computer code comprising a complete set of the plurality of messages have been downloaded (col.10, lines 61-67);
- starting a computer code burn in process, comprising:
 - (i) assembling the complete set of the computer code into a continuous memory (col.10, lines 44-60),
 - (ii) burning the computer code into a flash memory of the remote computer (col.10, lines 61-67);
 - (iii) deleting the stored computer code from the non-volatile memory (col.7, lines 1-9);

Hoffman, however, fails to disclose:

- rebooting the remote computer;

In a similar endeavor, McAlinden discloses a way of configuring a portable device. McAlinden also discloses rebooting the remote computer (paragraph 0027).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to reboot the local computer so that the software and hardware parts could be reinitiated.

With further regard to claim 47, Hoffman also discloses detecting the presence of the downloaded computer code at a specified memory location (col. 10, lines 61-67).

Regarding claim 28, Hoffman discloses a system for over the air programming of computer code in a local computer having a flash memory, the system comprising:

- a central location that distributes updated computer code to the local computer using a plurality of computer code packets over a wireless transmission medium (fig.1, element 37);
- a receiver at the local computer that receives the updated computer code (element 5);
- a non-volatile memory at the local computer that stores the updated computer code (element 25);
- a detection module at the local computer that detects when all required computer code packets have been stored (col.6, lines 5-23);
- a burner program that checks the non-volatile memory for all required computer code packets, assembles the computer code packets into computer code (col.10, lines 44-60), burns the computer code into the flash memory (col.10, lines 61-67), and erases the computer code from

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the stored updated computer code from the non-volatile memory (col.7, lines 1-9).

Hoffman, however, fails to disclose:

- initiates a reboot process;
- a reboot program that reboots the local computer after burning the computer code into the flash memory.

In a similar endeavor, McAlinden discloses:

- initiates a reboot process (paragraph 0027);
- a reboot program that reboots the local computer after burning the computer code into the flash memory (paragraph 0027).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine McAlinden with Hoffman's method to detect all computer code packets has been transmitted and burned properly so that it is ready for users to use without incurring any problems.

Regarding claim 35, Hoffman discloses an apparatus that provides programming of a host processor, the apparatus comprising:

- means for receiving software by wireless transmission (fig.1, element 5);
- means for burning in the received software (col.10, lines 61-67);

Hoffman, however, fails to disclose wherein means for rebooting the processor.

In a similar endeavor, McAlinden discloses a way of configuring a portable device. McAlinden also discloses wherein means for rebooting the processor (paragraph 0027).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reboot the processor so that the downloaded software could be reinitiated.

Regarding claim 37, Hoffman discloses a method of providing computer code to programmable memory of a remote device, using a wireless communication technique, the method comprising:

- downloading a code segment and storing the code segment in a first memory (col. 12, lines 26-32);
- burning the downloaded code segment into the programmable memory (col. 12, lines 19-36).

Hoffman, however, fails to disclose:

- detecting the presence of downloaded code during reboot;
- initiating a reboot of the remote device.

In a similar endeavor, McAlinden discloses a way of configuring a portable device. McAlinden also discloses wherein detecting the presence of downloaded code during reboot (paragraph 0027); and initiating a reboot of the remote device (paragraph 0027).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an initiating a reboot of the remote device so that the software and hardware could be restarted and taken effect.

Regarding claim 38, Hoffman, and McAlinden both disclose the method of claim 37 as described above. Hoffman also discloses wherein the presence of downloaded code is detected at a prespecified memory address of the programmable memory (col. 6, lines 24-53, and col. 10, lines 61-67).

Regarding claim 52, Hoffman, and McAlinden disclose the method of claim 10 as described above. McAlinden also discloses wherein the remote device contains selected non-updateable software modules, and wherein the memory burner routine may not update such software modules (paragraph 0014).

Regarding claim 53, Hoffman, and McAlinden disclose the method of claim 53 as described above. McAlinden also discloses wherein the burner routine is a non-updateable software module (paragraph 0014).

Regarding claim 54, Hoffman, and McAlinden disclose the method of claim 10 as described above. McAlinden discloses further comprising receiving packets not related to the software update between wireless reception of the software packets (paragraph 0021).

Regarding claim 55, Hoffman, and McAlinden disclose the method of claim 10 as described above. McAlinden discloses further comprising allowing the remote device to cancel reception of the software update (paragraphs 0022-0024).

4. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman, in view of McAlinden, and in further view of Marran (US 6,549,770 B1).

Regarding claim 36, Hoffman and McAlinden both disclose the apparatus of claim 35 as described above. Both Hoffman and McAlinden fail to disclose wherein the means for burning in the received software, comprises:

- means for verifying that a complete package of the software is received;
- means for signaling when the complete package is received;
- wherein the means for burning in burns the complete software package into a flash memory of the processor.

In a similar endeavor, Marran discloses an over-the-air programming.

Marran also discloses:

- means for verifying that a complete package of the software is received (col.12, lines 37-64);
- means for signaling when the complete package is received (col.12, lines 32-36);
- wherein the means for burning in burns the complete software package into a flash memory of the processor (col.12, lines 29-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to verify and signal when the complete package is received so that the transferring process could be terminated.

5. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marran, and in view of Shaw (US – 6,341,373 B1), and in further view of McAlinden.

Regarding claims 50, and 51, Marran discloses a processor on a mobile platform, the processor capable of being updated using software received wirelessly, the processor comprising:

- an assembly routine that assembles software packets comprising the complete software update (col.12, lines 19-36),
- a validation routine that error checks the software packets (col.12, lines 37-64);
- a detection routine that detects when a complete software update is received at the processor (col.12, lines 37-64);

In a similar endeavor, Shaw discloses a method and system for secure downloading, recovery, and upgrading data. Shaw also discloses

- flash memory adapted to allow a software update to be burned in (fig. 1, elements 14, and 16);
- a programmable memory burner routine that burns the software update into the flash memory (fig. 3, elements 248 and its descriptions);
- a decompression routine that decompresses compressed software packets (col.3, lines 1-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to compress data and decompress before using data because it would save memory space.

Furthermore, McAlinden discloses:

- a reboot routine that directs a reboot when the detection module detects the complete software update (paragraph 0027).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an initiating a reboot of the remote device so that the software and hardware could be restarted and taken effect.

With further regard to claim 51, even though the cited references do not teach or suggest a global positioning system providing location information for the mobile platform. However, this is well known in the art to include a global positioning system to locate the position of such device. Hence, it is not novel.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

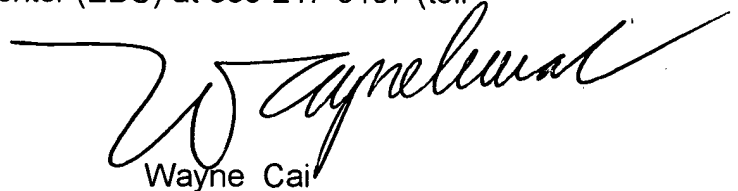
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Cai
Examiner
Art Unit 2681



ERIKA A. GARY
PRIMARY EXAMINER